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ON A COLLECTION OF REPTILES FROM MADAGASCAR MADE DURING THE YEAR 1911.

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INTRODUCTION.

THE Reptiles recorded and described in this paper were collected by Mr. Methuen, who was assisted by Monsieur Herschell-Chauvin, of Tamatave, during the months from May to December, 1911, in various parts of the island of Madagascar.

The majority of the specimens forming the collection are in the possession of the Transvaal Museum, a duplicate set having been sent to the Oxford University Museum.

Before proceeding with the descriptions, it would be as well we think to explain briefly the general characteristics of the regions in which the Reptiles were taken, and in order to facilitate matters, a map is given.

The island of Madagascar can be divided into three distinct floral regions, namely, the Eastern, the Western, and the Central or Plateau region. In these several zones the average precipitation of rain is different, the heaviest rainfall occurring in the eastern parts, the lowest in the western. The western region can be sub-divided into the western proper (from the Oniláhy River to the northern part of the island) and the south-western (south of the Oniláhy River, embracing among other territories those of the Mâhafály and the Antandróy, and stretching as a fairly wide belt towards the east well into the Province of Fort Dauphin, in fact within 50 kilometers or so of the town bearing this name).

The general characteristics of these zones are as follows:—The eastern region varying naturally with the latitude is very hot in summer and fairly cool in winter. The precipitation is heaviest when the monsoon winds from the east are blowing, that is from the months of December to April. The driest months are during August, September, and October.

The mean annual rainfall for Vatomándry (on the coast between latitude 19 and 20 S.) from the years 1902 to 1904, and 1906 to 1910 was 112 inches, the maximum 122 inches, and the minimum 107½ inches.

Except in those parts where the destructive force of the natives and of European forest-concessionaires is in evidence, a luxuriant monsoon rain-forest of tropical evergreens clothes the slopes of the mountains, which rise to the plateau, and descends over the mâmelons and unhealthy plains to the coast.

While travelling from the coast to the interior, the facies of the country changes considerably, as much according to the species of trees constituting the forests as to the actual lie of the land. In the littoral and sub-littoral belts, for instance, such trees as *Barringtonia*, *Terminalia*, *Casuarina* (*C. equisetifolia*), *Azalia*, *Calophyllum*, *Dracaena* are a characteristic feature of the vegetation; and the ebony (*Diospyros* spp.), the rosewood, the palissandre, and other valuable woods still hold their own against the inroads of the woodman's axe; in the undergrowth in this region Pandani are very common, and amongst the most noteworthy epiphytes are two fine species of *Angroecium*; here also *Nepenthes* is to be seen.

Ascending the slopes of the mountains one passes through forests of a somewhat different nature. Ferns, and especially tree-ferns, are very numerous, and constitute the most conspicuous and beautiful components of these forests; palms are comparatively rare. Among the trees typical of or common in this upper zone may be mentioned *Podocarpus*, *Symphonia* and *Garcinia*, *Dombeya*, *Grewia*, *Eugenia*, *Weinmannia*, *Elaeocarpus*.*

The Plateau is for the most part a bare steppe country. The grasses belong largely to cosmopolitan species. Its climate is sub-tropical; the Ankaratra mass, which rises to a height just short of 9000 feet, has a climate and flora which is almost temperate.

The rainfall is seasonal, a wet summer and a dry winter obtaining; for Tananarive the rainfall has an average of 53 inches (Tananarive Annual). There can be no doubt but that at one time a dense forest covered this Plateau, and there is reason to suppose that the Malagasy destroyed the greater part of these woods for the purpose of making rice fields, etc. Now in parts only one sees remains of this supposed extensive forest in kloofs of the hills, or as isolated patches where the population is thin, as in the country lying between Ankazobé and Andriba: in such parts the aspect of the country is often park-like.

The last region to be considered, namely the Western, has the lowest rainfall; at Môrondáva for the years 1902 and 1903 and 1905 to 1910, the average rainfall was 24 inches, the maximum 38 inches, and the minimum 12·2 inches. At Tulear, which lies in the south-west, the rainfall is still lower; the Jesuit Fathers at Tananarive gave us the following records:— for the year 1902 the rainfall was 11·4 inches, for 1903 1·75 inches, and 1904, 29 inches; the average rainfall for the south-west does not probably exceed 16 inches, and in the extreme south, say near Cape St. Marie, the precipitation is undoubtedly even lower. The rainy season is during the months of January and February, and may be prolonged another month

* In mention of the above trees we have relied largely on Baron and Louvel.

or two or start a month or so earlier. The western parts of the island are undoubtedly the hottest, and the south-western, as has been pointed out, the driest.

As to vegetation, the south-west is clothed by a low thorn or scrub forest of deciduous trees mostly. Conspicuous plants are species of *Euphorbia* (*Hintisy* section), *Asclepiads* (chiefly lianes), the Tamarind, the little fan-palm *Hyphaene coriacea*, a species of *Adansonia*, *Sclerocarya caffra*, and numerous thorn-trees or rather bushes. Orchids, grasses, and ferns are rare. In parts the tall thorny stems of species of Sapindaceae (*Didiera* and *Alluaudra*) give to the landscape a bizarre appearance.*

A great extent of the south-west is characterized by a calcareous mass of Eocene marine deposits in the form of a plateau; further inland and to the east, crystalline schists and granites appear; extensive marine deposits of Cretaceous to upper Permian age have been signalized as constituting the rocks of the western parts of the island; this belt is invaded by granite in places, the most important interruption occurring in the district of Ambongo, which lies somewhat to the south of Mòjungá. On the other hand, the plateau and the east is composed mainly of Archean rocks, granites, gneiss, and here and there crystalline schists. Near the east coast Cretaceous deposits have been found in small areas. Pleistocene and recent alluvial deposits occur along the coast in all parts of Madagascar and here and there on the plateau; in the west they are in places very extensive.

This general description, brief as it is, will it is hoped give the reader an idea as to the conditions in which the Reptiles recorded in this paper live. As may be supposed, though some of the Malagasy Reptiles occur throughout the island, others were found to have a limited distribution, regulated presumably by climatic conditions. Thus *Hemidactylus mabuia* is found in all parts of the island except in the higher parts of the plateau. *Mabuia gravenhorsti* is ubiquitous. On the other hand, *Uroplates fimbriatus* is confined to the rain-forests of the east; *Homopholis heterolepis* to the dry south-west.

LIST OF THE REPTILES COLLECTED. †

LACERTILIA.

GECKONIDAE.

PHYLLODACTYLUS BREVIPES, Mocquard. A single specimen from Tsivanóá in the south-west. 4025.

P. BASTARDI, Mocq. A good many specimens, adult and juvenile, were taken at Andrànoláho in the fringing forest of the Òniláhy River. In young specimens the dark markings on the back are much more distinct than in adults. 4000-4012. 4057.

P. POROGASTER, Boulenger. A single specimen which appears to belong to this species from Tsivanóá. Our specimen does not show the

* We are indebted to Monsieur Perrier de la Bathie for much of the information contained in this paragraph, and also for the excellent photograph from which Fig. 2, Plate VII, has been prepared.

† After every species is given the catalogue number in Transvaal Museum collection only.

pores on the enlarged scales of the umbilical region ; we suppose that this may be a sexual character. Total length, 52·5 mm., of which the tail measures 24·5 mm. 3998.

EBENAVIA INUNGUIS, Böttger. A single specimen collected by M. Herschell-Chauvin in the neighbourhood of Tamatave. 3999.

LYGODACTYLUS MADAGASCARIENSIS, Böttg. Three specimens were taken at Tsivanóa, near Tuléar. 4022-24.

L. VERTICILLATUS, Mocq. The differences between this species and the preceding seem to be very slight. In fact, we have two or three specimens of *verticillatus* which in the characters of the tail are barely distinguishable from *madagascariensis*. This species was found in the same locality as *madagascariensis*, but in greater quantity. Our records are from the district of Tuléar and from various places on the Ôniláhy River. Its slatish colour serves to conceal it amongst the lianes and thin twigs of the bushes on which it is to be found. 4013-21.

LYGODACTYLUS MIOPS, Mocq. Two specimens were taken in the eastern parts, one at Anàlamazótra, the other at Ambílo. 3996-97.

HEMIDACTYLUS MABOUIA, Moreau de Jonnés. Found abundantly on the east coast in the districts of Àndevoránto and of Tamatave. Taken also in the north-west at Maèvatanána, and in the south-west near Tuléar. It is a frequent occupant of Malagasy houses. 4026-45.

H. FRENATUS, Duin. and Bibr. Several specimens on the east coast at Ambílo, district of Àndevoránto. 4046-51.

HOMOPHOLIS HETEROLEPIS, Blgr. Two specimens in the south-west, in the district of Bètsioky. 4052-53.

GECKOLEPIS TYPICA, Grandidier, *MODESTA*, var. nov. Differs from *typica* in that the naso-rostrals are separated by one or two small scales and in the number of scales round the body. In the four specimens taken at Àndranoláho, on the River Ôniláhy, the number of scales round the body was found to be respectively 22, 25, 25, and 26. These characters which distinguish the variety from *typica*, would appear to relate it to *maculata*; but from this latter species it is easily to be distinguished by the fact that as in *typica* the internal pair of post-mentals are separated by the mental scute.

Colour iridescent bluish- or brownish-grey above ; white or dirty white below. Tail the same colour as the body.

The lengths of three specimens are as follows :—

TOTAL LENGTH.	LENGTH OF TAIL.
mm.	mm.
138	75
133·5	66·5
128·75	61·75

4054-55, 4146.

PHELSUMA MUTABILE, Grandid. This species, together with the following, was found very commonly in the fringing forest of the Ôniláhy River at Màroamálona, Àndranoláho, and at Tôngobóry. A single specimen was also taken at Maevatanana. 4058, 4060-62, 4064, 4066, 4068, 4071-73, 4075, 4076.

PH. STANDINGI, sp. nov. Closely related to *Ph. mutabile* and to a less extent to *Ph. laticauda*.

The chief characters of importance are : the small size of the naso-rostrals and their separation by two scales ; the proportional lengths of the snout to the diameter of the orbit and to the distance from the orbit to the ear ; the size and number of the chin-shields ; the lepidosis of the body ; the shape, scaling, and segmentation of the tail.

Description.—Snout nearly twice as long as the horizontal diameter of the eye, and about one and a half times the distance from the eye to the ear opening ; the actual measurements are :—

Snout 11 mm. : horizontal diameter of eye 5·6 mm. : distance of eye to ear opening 7 mm.

Rostral with median cleft above. Nostril pierced between first upper labial, naso-rostral, postnasal, and a small scale between the last two scales ; naso-rostrals small, separated by two small scales. Nine upper and seven lower labials. Mental sub-pentagonal ; four pairs of chin-shields bordering the labials ; inner pair the largest. Scales of body smooth ; those on the flanks about the same size as the dorsals. Tail oval in section, not as broad as the back. Tail-segments composed of six or seven whorls of scales above ; lower surface somewhat irregularly scutellated, though medianally a double row of enlarged scales can be easily discerned.

Colour above emerald green with numerous dark irregular transverse bars ; below white, the throat slightly flecked with bluish-grey, and tail bluish.

Measurements : from snout to vent, 87·5 mm. ; tail (imperfect), 61·4 mm. 4251.

We have much pleasure in naming this species after Dr. H. F. Standing of Tananarive.

PH. LATICAUDA, Böttg. Our specimens show the following characters, which seem to be worthy of mention. The number of femoral pores varies from 20 to 22. The naso-rostrals are usually single, but in one specimen two on each side are present. The rostral may or may not have a cleft above.

Localities : One specimen from Môjungá, the others from Màroa-máloná. 4056, 4059, 4065, 4067, 4069, 4070, 4074.

PH. MADAGASCARIENSE, Gray. Some specimens from Ambilo in which we notice that the median dorsal cleft of the rostral scute may or may not be present. 4077–81.

PH. LINEATUM, Gray. Many specimens from the eastern parts. In one example, a juvenile, the mental scute is in contact with three chin-shields, instead of with two as in typical specimens. 4082–4106.

UROPLATES FIMBRIATUS, Schneider (Plate VIII). Several specimens from the forests adjacent to Anàlamazótra and from other parts in the east of the island. 4107–16.

U. EBENAU, Böttg. (Plate IX). A single specimen from Anàlamozótra, answering to the description and figure of *U. phantasticus*, Blgr., which has been reduced by Mocquard to a synonym of *ebenau*. 4252.

IGUANIDAE.

HOPLURUS CYCLURUS, Merrem. From the south-west; records from Tuléar and district and the Ôniláhy River as far as Tôngobóry. 4122-26, 4253, 4254.

H. QUADRIMACULATUS, A. Dum. Two specimens were taken at Ambôhibóla, in the hills near Tuléar. One of these is evidently juvenile. The head-scaling in the two differs considerably. The larger example, which measures 373 mm., of which the tail is 260 mm., has the scales between the nostrils strongly keeled; so also those covering the fronto-nasals. The scales between and behind the supra-orbitals and covering the parietal bones are convex, some being conical, and others keeled but not so strongly as those between the nostrils. The supra-orbital scales, on the other hand, are almost flat. The "occipital" shield is only slightly larger than the surrounding scales. The anterior border of the ear has about twelve spine-like scales of varying size.

In the case of the juvenile specimen, the head scales, excepting a few between the nostrils, are almost smooth, and the "occipital" shield is considerably enlarged. 4117-18.

H. SAXICOLA, Grandid. Found living among rocks near Miáry, district of Bêtsióky. It is worth mentioning that the shape of the "occipital" scute in our specimens varies considerably. 4119-21.

CHALARODON MADAGASCARIENSIS, Peters. A common lizard in the south-west, especially in sandy parts. Taken in the district of Tuléar, at Tsivanóá. 4141-45, 4262-63.

GERRHOSAURIDAE.

ZONOSAURUS ORNATUS, Gray. Two specimens from the eastern forest of the mountainous districts adjacent to Analamazotra and Ambôhidratrímo. One of these, which is juvenile, possesses three upper labials on one side and four on the other, anterior to the subocular shield; the frontal is elongated and the prefrontals form a short suture; it has fifteen femoral pores on each side. The adult specimen, which has twelve femoral pores on each side, measures 300 mm., of which the tail is 185 mm. 4140, 4261.

Z. MADAGASCARIENSIS, Gray. Two specimens from the neighbourhood of Tôngobóry in the south-west. In one individual the prefrontals form a median suture of some length; in the other these scales are well separated. The length of the fronto-nasal relative to that of the frontal varies accordingly in the two. The interparietal is absent in one, barely suggested in the other specimen. The femoral pores on each side number twenty-four in one, twenty-three in the other. The length of the largest specimen is 382 mm., of which the tail is 242 mm. 4138-39.

TRACHELOPTYCHUS MADAGASCARIENSIS, Pet. Several specimens from the south-west, along the Ôniláhy River. 4129-30, 133-34, 4258.

T. PETERSI, Grandid. Several specimens from sivanóá. 4127-28, 4131-32, 4135-37, 4259,-60.

SCINCIDAE.

MABUIA AUREOPUNCTATA, Grandid. On the Ôniláhy River, several individuals. In every case the prefrontals form a fairly long median

suture, though in the British Museum Catalogue description, based apparently on Betsileo specimens, the frontal is said to be in contact with the fronto-nasal. A half-grown example is uniformly olive-coloured above, with only the faintest indication of yellow spots over the neck. 4148-51, 4266-67.

M. BOETTGERI, Blgr. Some specimens from Analamazotra. 4175-78.

M. GRAVENHORSTI, D. and B. Taken on the plateau at Tananarive, at Analamazotra, near the coast at Tamatave, and in several localities in the south-west. 4152-71.

M. ELEGANS, Pet. Taken in the south-west, in the neighbourhood of Tuléar, and on the Ôniláhy River. 4172-74.

SCELOTES ASTROLABI, Pet. (Fig.). One specimen was collected by M. Herschell-Chauvin in the forest of Folohy, in the neighbourhood of Tamatave. The head scaling of this skink, which we presume is *S. astrolabi*, is somewhat remarkable, and we intend therefore giving a description of the chief features of the same.

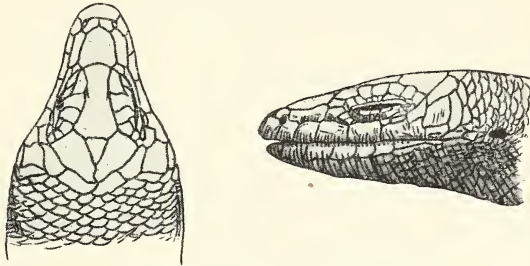


Fig. *Scelotes astrolabi*, Pet.; showing apparent abnormality of head-scaling.

The supra-nasals, which are small, form a fairly short median suture. The nostril is situated between the supra-nasal, the rostral, the first labial, and a long postnasal shield; the postnasal shield abuts on the supra-nasal, a large fronto-nasal, the first supraciliary, the preocular, and the first, second, and a small part of the third labial. Sutures defining the presence of loreals are entirely absent. This condition is the same on both sides of the head.

The frontal shield is long, slightly exceeding in length the distance from the distal extremity of the rostral to the posterior end of the fronto-nasal.

There are thirty-four scales round the centre of the body. 4187.

SC. MELANOPEURA, Günther. Two specimens from Analamazotra; they both have the normal number of scales round the body, namely, twenty-four. 4185-86.

SC. IGNEOCAUDATUS, Grandid. A single individual from Andranolaho. 4184.

SEPSINA MELANURA, Günth. Two specimens from Analamazotra, which have twenty-eight longitudinal series of scales on the body; two others, presumably juvenile, with a series of twenty-six scales, from Tamatave (Herschell-Chauvin). 4188-90, 4264.

ACONTIAS HOLOMELAS, Günth. Two specimens from the eastern parts of the island (Herschell-Chauvin). The longitudinal series of scales round the body number thirty in both examples. 4192-93.

VOELTZKOWIA MIRA, Böttg. A single specimen from Miáry, district of Bètsióky. 4191.

CHAMAELEONTIDAE.

In the identification of the Chamaeleons we have been guided largely by Werner's thesis in the "Zoologische Jahrbuch. Syst." (Vol. xv, 1902), and his account of the group in "Das Tierreich" (27 Lief., 1911). We have experienced no small difficulty in assigning some of the specimens to known species, and in a few cases we have considered it expedient to give full descriptions and varietal or even specific distinction.

CHAMAELEON LATERALIS, Gray. Several specimens from Analamazotra and from the east coast at Ampantomáizina. 4194-98.

CH. VERRUCOSUS, Cuvier. A large individual measuring in total length 22 inches was taken at Tuléar; it was not, however, preserved.

CH. PARDALIS, Cuv. A juvenile specimen from the east coast (Herschell-Chauvin). 4199.

CH. RHINOCERATUS, Gray, LINEATUS, var. nov. (Plate X). A single specimen, measuring 153 mm., of which the tail is 73 mm., was taken at Tsivanóá. It is in most respects similar to *rhinoceratus* (= *antimena* according to Mocquard and Werner). However, certain differences have been recognized, of which the most important are to be seen in the shape of the rostral process, and in the presence of a very distinct white line occupying a median position on the ventral surface.

Description.—Casque which is not greatly elevated forms a sharp angle behind; parietal crest raised and well developed. The lateral crests are not so distinct, but are indicated by enlarged subconical tubercles. Tubercles also exist on the *canthus rostralis* and on the bony rostral process. This process is somewhat concave above, the concavity much narrowed being continued in front and very slightly below. Viewing the head in profile this same appendage is seen to be slightly concave below. The rest of the head is covered by flat scales of unequal size. Occipital lobes are entirely absent. A dorsal crest of a few enlarged conical tubercles is present, about thirteen in number, not extending much behind the elbow when the forelimb is extended backwards in line with the body.

An uninterrupted ventral crest exists, extending along the throat nearly as far as the vent. This crest consists of a single row of tubercles, broken up in places into two or even three rows.

The white line which indicates this ventral crest forks just before the vent, runs along the anterior part of the under surface of the thighs, and makes its way back along the posterior part of the same, continuing as a double line along three-quarters of the length of the tail.

The tubercles on the body are of unequal size; a single but rather irregular row of enlarged tubercles is developed on the flanks.

The tail is not compressed as in *rhinoceratus*. 4200.

CH. BREVICORNIS, Günth. This was found to be the commonest chamaeleon in the forests adjacent to Analamazotra; it was also taken at Ambòhidratrimo. 4201-18.

CH. MALTHE, Günth. Several specimens from Analamazotra. 4219-21.

CH. PARSONSI, CUV., CRISTIFER, var. nov. (Plate XI, figs. 1-3). Differs from *parsonsi* in the possession of a dorsal crest on the body and an ill-developed parietal crest on the head. It is related also to *Ch. globifer*, from which, however, it differs essentially in the shape of the rostral processes, which appear to be typical for *parsonsi*. Our specimens show some variation in the lepidosis of the body and limbs; in most of the examples this lepidosis is homogeneous, but in one or two individuals a few somewhat enlarged tubercles are developed on the forearm.

A common chamaeleon at Analamazotra. It reaches a considerable size; the largest specimen preserved measures from tip of horns to vent 172 mm., and from vent to tip of tail 265 mm. 4222-27.

CH. GASTROTAENIA, Blgr. Two individuals were taken at Analamazotra and another at Ampantomáizina. In the specimen from the coast there is an incipient development of a dorsal crest, but the tubercles are ill-developed and ill-defined and extend but for a short distance along the back; the lepidosis of the body is composed only of flattened scales; in the Analamazotra specimens small granules occur between the scales. 4228-30.

CHAMAELEON CHAUVINI, sp. nov. (Plate XI, fig. 4). This species is closely related to *Ch. furcifer*, and just possibly it may eventually prove to be a juvenile form of that species.

The casque is low, being practically continuous with the dorsal crest. Occipital lobes are absent. The scales on the head are small and subequal. There is no parietal crest. Three or four tubercles slightly larger than the scales which surround them indicate a very feeble dorso-lateral crest on both sides of the casque. The temporal crest is feebly developed; the lateral crest is continued in front into a bony rostral process which is short, slightly concave above, and bifid at the end; this rostral process projects about 1 mm. beyond the upper lip. There is present a dorsal crest of small compressed tubercles extending to a point just above the knee when the hind limb is placed in line with the body. No gular nor ventral crests; lepidosis of body, limbs, and tail homogeneous; scales granulated.

From tip of snout to vent the measurement is 56.5 mm. The tail is 56 mm. long.

A double white line extends along the throat and ventral surface of the body; just before the vent it is interrupted as it passes up and down the hind limbs, to continue its course behind the vent for a distance about equal to one-third of the length of the tail.

A faint light lateral line containing two white spots is also visible.

One specimen, a ♂, collected by M. Herschell-Chauvin near Tamatave. 4237.

CH. BIFIDUS, Bronquiart. An adult male from Ampantomaizina, and an immature male from the forest of Chambaena (?), a day and a half distant from Tamatave (Herschell-Chauvin). 4231-32.

CH. NASUTUS, D. and B. Several specimens near the coast at Ambilo and in the "jardins d'essai" near Tamatave. The colour of this animal in life is reddish-brown. 4233-36.

BROOKESIA SUPERCILIARIS, Kuhl. Several examples from Analamazotra. This animal was generally taken on the bark of trees; its peculiar shape and general colour harmonizes well with the lichen, moss, etc., which covers the trees in these parts. 4247-50.

It would be difficult to explain the extreme differentiation amongst the Chamaeleons of Madagascar in terms of any theory known to us. Not only is there a great number of species apparently distinct from each other, but in many cases the structural characters which separate the members of a group of closely allied species would not seem to be specifically adaptative (e.g. the head processes of *parsonsi* and other groups); whilst on the other hand the many lines of variation represented therein would hardly afford evidence in favour of orthogenetic evolution. We can point to two important external factors which may be supposed to have operated in the formation of species:—(1) *Climatic and environmental differences*—these are very great, even in comparatively small areas; (2) *geographical isolation*—the slow movements of Chamaeleons afford possibilities for isolation such as do not obtain in the great majority of Reptiles. Whether all closely related forms are geographically or topographically isolated from each other we cannot say; it seems probable that such is the case in the *parsonsi* group at any rate.

OPHIDIA.

BOIDAE.

CORALLUS MADAGASCARIENSIS, D. and B. A single specimen from Analamazotra, which measures 1240 mm. in total length, of which the tail is 125 mm. 2500.

COLUBRIDAE.

POLYDONTOPHIS TORQUATUS, Blgr. Two specimens, one from Ambohidratrimo, and the other from Analamazotra. The largest of the two has the tail imperfect, but measures from snout to vent 415 mm. 2501-02.

DROMICODRYAS BERNIERI, D. and B. Several specimens from the south-west, at Bètsiôky and on the Ôniláhy River. 2503-07.

Genus *LIOPHOLIDOPHIS*, Mocquard. We have followed Mocquard in using the generic term *Liopholidophis* to include the Malagasy species which were formerly referred to the genus *Tropidonotus*; in his thesis on the Reptiles and Amphibians of Madagascar, Mocquard writes:—“Rapportées successivement aux genres *Dromicus*, *Leptophis*, et *Tropidonotus*, les espèces rangeées ici sous le nom générique de *Liopholidophis* présentent cette particularité que, chez les mâles, les hémipénis sont profondément divisés et que la queue est, en général, incomparablement plus longue que chez les femelles.” We may further point out that the maxillary dentition of these species is quite different from that of the South African representative of the old genus *Tropidonotus*, viz. *T. laevis*.

L. LATERALIS, D. and B. Taken in various parts of the country; localities are Ambàtoharánana (near Ampàsimpótsy=Masse) in the east, in rice fields near Tananarive on the plateau, in the south-west on the Ôniláhy River, and at Bètsiôky. 2511-19.



Plate V.

Sublittoral Forest with *Pandanus*: East Coast of Madagascar.



Plate VI.

Forest on Mountains of the Interior : Eastern Madagascar.



Fig. 1. Grass formation. Village near Lake Alaotra: Altitude 800–900 metres.



Plate VII.

[From photo by Monsieur Perrier de la Bathi.

Fig. 2. Bush in South-West Madagascar, with *Sclerocarya caffra*, *Adansonia*, *Tamarindus indica*, *Hyphaene coriacea*.

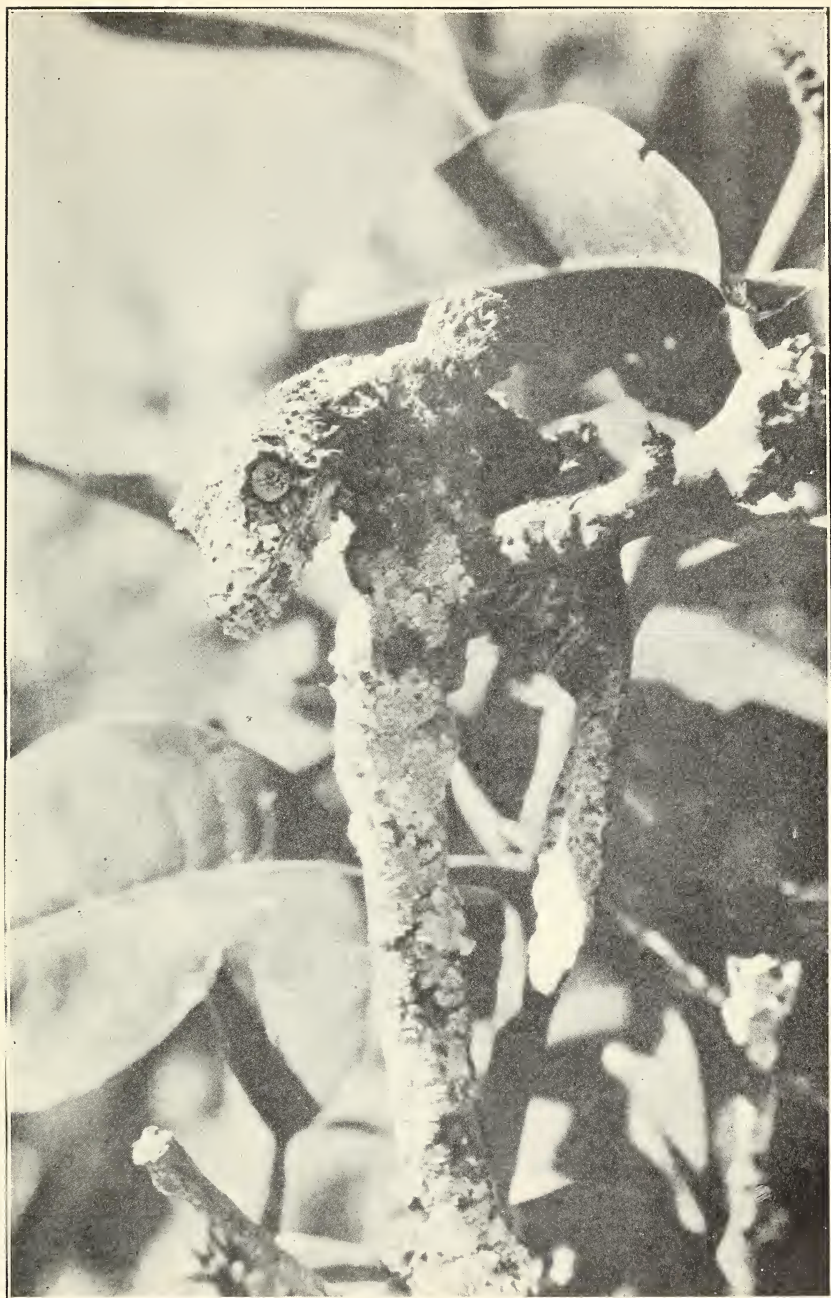


Plate VIII.

Uroplates fimbriatus, Schneider



Plate IX.

Uroplates ebenavi, Boettger. (Slightly enlarged.)



Plate X.

Chamaeleon rhinoceratus, Gray, var. nov. *Unadatus*.
(Considerably enlarged.)



Plate XI.

Fig. 1.

Fig. 1-2. *Chamaeleon parsonsi*, Cuv., var. nov. *Cristifer*. (Fig. 1 reduced.)



Fig. 2.

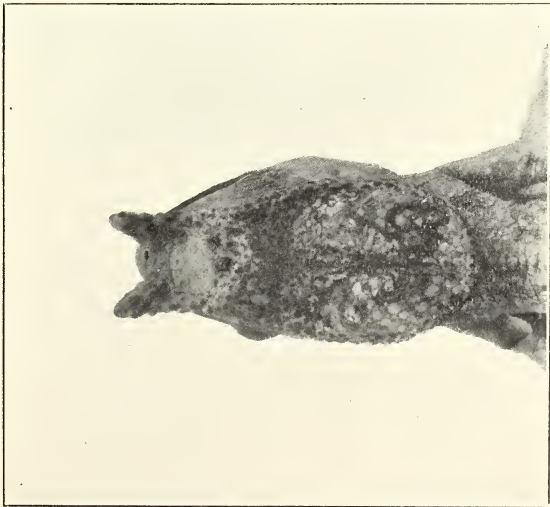


Plate XI.

Fig. 3.

Fig. 3. *Chamaeleon parsonsi*, Cuv., var. nov. *Cristifer*.



Fig. 4.

Fig. 4. *Chamaeleon chaarini*, sp. nov.

L. STUMPFII, Böttg. Mocquard reduces this species to a synonym of *L. lateralis*, but we consider that on the size of the eye, the two species can be kept separate. Two specimens taken at Analamazotra are included in the collection. 2510-42.

L. SEXLINEATUS, Günth. Two specimens, one from Analamazotra, the others from Ambòhidratrimo. 2508-09.

LIOHETERODON MADAGASCARIENSIS, D. and B. A single specimen from Ambilo on the east coast. Scales in twenty-three longitudinal series. Two hundred and ten ventral scales; anal entire; sixty-three subcaudals, of which the first is divided, the second to the seventh entire, and the rest again divided. Total length, 1100 mm., of which the tail measures 190 mm. 2520.

L. MODESTUS, Günth. Two specimens, the largest of which measures 1193 mm. in total length, from the south-west on the Ôniláhy River, at Maroamalona. Twenty-one longitudinal series of scales in both; anal undivided; in one specimen, ventral scales two hundred and two; subcaudals sixty-four, of which the first fourteen are undivided. 2521-22.

L. GEAYI, Mocquard. A single specimen from Bètsióky, in the south-west. Total length 684 mm., of which the tail is 134 mm. Scales in twenty-three longitudinal series. Two hundred ventral scales; anal undivided; sixty-four subcaudals, of which the first is divided, the second to the fourteenth entire, the remainder divided. 2523.

ITHYCYPHUS GOUDOTI, Schegel. Two specimens from Ambilo on the east coast. 2524-25.

ETEIRODIPSAS COLUBRINA, Schleg. One specimen from the east, not far distant from Tamatave, in the "valleé d'Ivolino" (Herschell-Chauvin); also another from Ambilo. Further, several individuals were taken in the south-west in the neighbourhood of Bètsióky and of Tuléar.

The largest specimen measures from snout to vent 530 mm., tail 108 mm. 2526-31.

MIMOPHIS MAHAFALENSIS, Grandid. Found to be a very common snake in the dry region of the south-west. Our examples are from the country through which the Ôniláhy River flows as far inland as Tôngobóry and also from Bètsióky. 2532-41.
